, r

24 Claims

What is claimed is:

- 1. A biphasic injectable composition for tissue volume 5 replacement a solid polymer phase; and a carrier substrate phase.
- 2. The composition of Claim 1, wherein the solid 10 phase made from micronized expanded polymer is polytetrafluoroethelene ("e-PTFE") particles, polydioxanone, long chain aliphatic polymers Nylon 6, long chain aliphatic polymers Nylon 6,6, polypropylene, copolymer made from 90% glycolide and 10% L-lactide, silk, poly ε-caprolactone, polylactide, polyglycolide, poly lactide-copolyhydroxyvalerate, biocompatible 15 glycolide, micronized polyethylene, bioactive glass particulate, synthetic bone graft particulate, or polyhydroxyvalerate.
- 3. The composition of Claim 1, wherein the solid polymer phase is made from at least two of micronized expanded polytetrafluoroethelene ("e-PTFE") particles, polydioxanone, long chain aliphatic polymers Nylon 6, long chain aliphatic polymers Nylon 6,6, polypropylene, copolymer made from 90% glycolide and 10% L-lactide, silk, poly ε-caprolactone, polylactide, polyglycolide, poly lactide-coglycolide, polyhydroxyvalerate, biocompatible micronized polyethylene, bioactive glass particulate, synthetic bone graft particulate, or polyhydroxyvalerate.
- 4. The composition of Claim 1, wherein the carrier substrate phase is selected from polyvinylpyrrolidone ("PVP"), silicone oil, gelatin, collagen, fat, hyaluronic acid, saline, water or plasma.
- 5. The composition of Claim 1 wherein the solid polymer phase comprises micronized expanded polytetrafluoroethelene ("e-35 PTFE") particles.

. **.**

- 6. The composition of Claim 5, wherein the e-PTFE particles range in size from approximately 65 to 1000 micrometers.
- 5 7. The composition of Claim 1, wherein the carrier substrate phase is PVP.
 - 8. The composition of Claim 7, wherein the PVP comprises a K value from approximately less than 12 to 100.
 - 9. The composition of Claim 7, wherein the PVP comprises a K value from approximately less than 12 to 50.
- 10. The composition of Claim 7, wherein the PVP comprises a K value from approximately less than 12 to 20.
 - 11. The composition of Claim 7, wherein the PVP comprises a K value of 17.
- 20 12. The composition of Claim 1, wherein the solid polymer phase comprises e-PTFE; and the carrier substrate phase comprises PVP.
- 13. The composition of Claim 12 wherein the e-PTFE and the PVP are combined at a ratio of approximately 3:2 PVP to e-PTFE by weight.
- 14. The composition of Claim 1, wherein the carrier substrate phase comprises micronized polydioxanone particles ranging in size from approximately 65 to 1000 micrometers
 - 15. A method for tissue augmentation comprising: injecting a biphasic injectable composition comprising: a solid polymer phase; and a carrier substrate phase.

35

10

1 L 1

- 16. The method of Claim 15, wherein the solid polymer phase is made from micronized expanded polytetrafluoroethelene ("e-PTFE") particles, polydioxanone, long chain aliphatic polymers Nylon 6, long chain aliphatic polymers Nylon 6,6, polypropylene, copolymer made from 90% glycolide and 10% L-lactide, silk, poly ε-caprolactone, polylactide, polyglycolide, lactide-co-glycolide. poly polyhydroxyvalerate, biocompatible micronized polyethylene, bioactive glass particulate, synthetic bone graft particulate, polyhydroxyvalerate.
- 17. The method of Claim 15, wherein the carrier substrate phase is selected from polyvinylpyrrolidone ("PVP"), silicone oil, gelatin, bovine collagen, autologous fat, hyaluronic acid, saline, water or autologous plasma.
 - 18. The method of Claim 15, wherein injecting comprises:
- inserting a delivery apparatus containing the biphasic 20 injectable composition into the injection site.
 - 19. The method of Claim 15, wherein the injecting comprises subcutaneous, intradermal, intramuscular, periurethral injection or injecting the vocal cords.

25

5

10